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Defence Services Medical Academy (DSMA): A comprehensive overview of its educational framework and contributions to medical education

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I. INTRODUCTION

The Defence Services Medical Academy (DSMA) was established in 1992 to tackle a significant scarcity of doctors in the Myanmar Armed Forces. DSMA, originally known as the Defence Services Institute of Medicine (DSIM), has the specific objective of training skilled medical personnel who possess the necessary physical and mental capabilities to protect national interests. By 2008, DSMA had trained a substantial number of medical officers and specialists, establishing itself as the exclusive provider of medical officers for the Directorate of Medical Services. The admissions procedure at DSMA is extremely rigorous, necessitating prospective students to exceed a set of requirements that encompass entrance tests in botany, zoology, and English, in addition to physical, teamwork, and psychometric assessments. Only individuals who exhibit the utmost levels of academic proficiency and physical fitness are admitted through this tough selection process. DSMA provides a diverse selection of educational programmes and degrees in the field of medicine, encompassing both fundamental and advanced levels of study in medicine and surgery. The curricula of military medical school closely resemble that of civilian medical schools, but include additional subjects such as military medicine and leadership training. Upon completion of their studies, DSMA graduates are appointed as Medical Officers (Lieutenants) in the Myanmar Military Medical Corps. They are entrusted with the responsibility of fulfilling several roles, which include attending to healthcare requirements in remote areas. Graduates of DSMA make a significant contribution to healthcare and rural service by providing essential medical treatment to rural people in Myanmar, particularly in places where access to medical facilities is limited. This pledge is in line with the academy's aim to not only train competent medical professionals but also make a substantial contribution to the country's healthcare system.

II. EDUCATIONAL PRINCIPLES AND LEARNING THEORIES

DSMA's educational philosophy is grounded in a commitment to producing medical professionals who are not only skilled but also possess high moral standards and the courage to serve. The academy's curriculum is designed to foster a deep understanding of medical science, along with the development of practical skills and ethical values. Learning theories such as experiential learning, social learning, and constructivism play a pivotal role in shaping the educational approach at DSMA. These theories emphasise the importance of hands-on experience, the influence of social interactions, and the construction of knowledge through active engagement, respectively (Al-Eyd et al., 2018).

III. TEACHING AND LEARNING STRATEGIES

The teaching and learning strategies employed at DSMA are diverse and tailored to meet the needs of adult learners in a medical setting. The academy has embraced a shift from traditional lecture-based methods to more interactive and student-centered approaches. Small group teaching, problem-based learning, and clinical simulations are integral components of the curriculum, encouraging active participation and critical thinking. The use of multimedia resources, e-library facilities, and internet access further enriches the learning experience, providing students with a wealth of information at their fingertips (Anyim, 2019).

IV. EDUCATIONAL LEADERSHIP

Educational leadership at DSMA is characterised by a vision that is focused on continuous improvement and innovation. The leadership team, the Commandant, Rector, heads of various wings, and faculty members, works collaboratively to ensure the alignment of the academy's goals with its educational practices. The establishment of committees such as the Curriculum Review Committee, Assessment Committee and the Medical Education Committee reflects the academy's commitment to maintaining high standards and adapting to the evolving landscape of medical education (Davis et al., 2005).

V. ASSESSMENT PRINCIPLES

Assessment at DSMA is an integral part of the learning process, designed to evaluate students' knowledge, skills, and attitudes. The academy employs a variety of assessment methods, including written exams, practical exams, and clinical assessments, to provide a comprehensive evaluation of student performance. Formative assessments are used throughout the course to provide feedback and guide learning, while summative assessments are used to determine students' readiness to progress to the next stage of their training (Houston & Thompson, 2017).

VI. SHAPING THE FUTURE OF HEALTHCARE

A. Medical Education Research Culture

Research in medical education is a growing area of focus at DSMA. The academy encourages faculty and students to engage in research activities that contribute to the advancement of medical education and practice. This research culture is supported by the availability of resources such as the e-library and internet access, as well as collaborations with other institutions and organisations. The findings from these research endeavors are used to inform curriculum development and teaching practices, ensuring that DSMA remains at the forefront of medical education innovation. In short, the Defence Services Medical Academy in Myanmar provides a comprehensive and dynamic educational environment for aspiring medical professionals. Through its adherence to educational principles, implementation of effective teaching and learning strategies, strong educational leadership, robust assessment practices, and a culture of medical education research, DSMA continues to make significant contributions to the field of medical education (McGaghie et al., 2010). Its commitment to quality, innovation, and international standards ensures that its graduates are well-equipped to serve the healthcare needs of the armed forces and the wider community.

B. Early Participation in ASEAN Forums

Following its establishment, DSMA began to participate in ASEAN forums and conferences related to medical education. These initial steps were crucial for DSMA to establish connections with other medical schools in the region.

C. Collaborative Research Projects

DSMA engaged in collaborative research projects with other ASEAN medical schools, focusing on areas of mutual interest such as tropical medicine, infectious diseases prevalent in the region, and military medicine.

D. Exchange Programs

DSMA implemented faculty and student exchange programs with ASEAN medical schools. These programs enhanced learning opportunities and fostered a deeper understanding of different healthcare systems and educational methodologies.

E. Joint Workshops and Training Programs

DSMA hosted and participated in joint workshops and training programs aimed at addressing common health issues in the region, such as dengue fever, malaria, and HIV/AIDS, leveraging its strengths in military medicine and public health.

F. Leadership in Medical Education Forums

DSMA's role in ASEAN medical education networks evolved to include leadership positions within regional forums and working groups focused on medical education. This leadership role allowed DSMA to influence the agenda towards more integrated and innovative approaches to medical training.

G. Digital Learning and Telemedicine Initiatives

Recognising the importance of digital transformation in medical education, DSMA led initiatives on digital learning platforms and telemedicine within the ASEAN

network, sharing its developments and learning resources with partner institutions.

H. Public Health and Disaster Management

DSMA's expertise in military medicine uniquely positioned it to lead regional initiatives on public health crisis management and disaster response training, areas of growing importance within ASEAN countries.

I. Global Health Security

DSMA's contributions have extended beyond ASEAN to global health security, particularly in areas like pandemic preparedness and biosecurity. Through international collaborations, DSMA has shared its expertise in handling health emergencies and disasters.

J. International Research Collaborations

The academy has engaged in international research collaborations, contributing valuable insights from the ASEAN region to global discussions on medical education and public health issues.

K. Looking Forward

The future sees DSMA continuing to play a crucial role in not just educating military medical personnel but also in contributing to the enhancement of medical education standards across ASEAN and globally. By focusing on innovative teaching methodologies, research, and international collaboration, DSMA aims to address the evolving challenges in healthcare and medical education, ensuring its graduates are well-equipped to meet the needs of their communities and beyond. DSMA's history and ongoing contributions to the ASEAN medical school network and other international networks underscore its commitment to excellence in medical education and its pivotal role in promoting health and education across the region and the world.

Notes on Contributors

Professor Khin Aung Htun led the core concepts and guided the whole manuscript. Dr. Ye Phyo Aung and Dr. Tayzar Hein contributed significantly to the drafting of the manuscript.

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Declaration of Interest

The authors declare that there are no conflicts of interest.

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